

## **MID AMERICA TANNING**

**(Sergeant Bluff, Iowa)**

### **GENERAL DESCRIPTION**

The Mid America Tanning site is located in a rural industrial area about 5 miles south of Sergeant Bluff, Iowa. The site is located on 98.5 acres in the S 1/2 of the NE 1/4 of Section 19, T87N, R47W, Woodbury County, Iowa. The main channel of the Missouri River is 1.5 to 2.0 miles west and southwest of the site. An unnamed oxbow lake is approximately 175 feet north of the disposal trench. Browns Lake State Park is located about two miles southeast of the site. The site was owned by Mid America Tanning Company, who was last doing business as U.S. Tanning Co. Mid America Tanning was active from 1969 until it was abandoned in 1990. The plant used a chrome process for tanning hides and generated chromium sludge as a by-product of the tanning process. The site was entered on the Registry in August 1989. The EPA placed the site on the National Priorities List (NPL) in August 1989.

### **SITE CLASSIFICATION**

In 2001 the site was reclassified as “d” Site Properly Closed Requires Continued Management.

### **TYPE AND QUANTITY OF HAZARDOUS WASTE**

#### **Metals: Chromium**

In 1979 approximately 900 cubic yards of chromium sludge were disposed of in an unlined trench on the property. Sludge was also land-applied on two cornfields north and south of the tanning building impacting approximately 12,000 cubic yards of soil. The two aeration basins contain approximately 45,000 cubic yards of sludge. The polishing basin contained approximately 40,500 cubic yards of contaminated sediments.

### **SUMMARY OF PUBLIC HEALTH AND ENVIRONMENTAL CONCERNS**

The principal health threat is due to chromium contamination of soil, impoundment sediment, and impoundment water. The EPA set the primary action level at 2,000 mg/kg of total chromium for soil. The highest levels of chromium contamination in these three areas are 43,000 mg/kg, 11,000 mg/kg, and 22,000 mg/kg respectively. The primary concerns were the potential threats to site workers from exposure to chromium by falling into the aeration basins and/or inhaling dust in the north cornfield.

Remedial actions completed in 2000 severed the potential exposure pathways by consolidating and capping all soils and waste materials containing chromium in excess of 2,000 mg/kg. A plastic cover was placed over the two aerated sludge lagoons. In the summer of 2005 a release occurred from the east aeration lagoon from a previously unidentified pipe. The pipe was plugged. No significant adverse impact resulted from the release. The Superfund Remedial program is currently solidifying the contents of both aerated lagoons to prevent any such future release. The only residual risk that will exist at the site will be potential long-term exposure to the consolidated and capped wastes, which will not occur unless excavation occurs in the capped areas. Excavations of the capped areas will be prohibited under this Registry authority.

### **SUMMARY OF ASSESSMENT, MONITORING OR REMEDIAL ACTIONS**

In 1980, the IDNR identified the site as a potential problem because of the on-site burial of filter press sludge. The EPA conducted a Preliminary Assessment/Site Investigation (PA/SI) of the site in 1985. Chromium concentrations of the sediment within the disposal trench and from an oxbow lake located on the site were 47,000 mg/kg and 5,400 mg/kg, respectively. Chromium was detected in two on-site monitoring wells above the drinking-water standard. Total metals concentrations of arsenic, barium, chromium, iron, lead, and manganese were detected in surface water and groundwater at the site above background levels.

In 1990 the EPA initiated a removal assessment and a Remedial Investigation/Feasibility Study (RI/FS). In 1990 the removal assessment at the trench burial area was initiated. The extent of chromium soil contamination was

determined, five monitoring wells were installed, and 1290 cubic yards of sludge were removed from the trench and placed on a liner at the site. The final disposal of the excavated material was addressed as part of the later remedial action for the entire site.

The EPA was the lead agency for the site during the assessment and remediation phases. The EPA completed the RI/FS in 1991, which included the installation of shallow, intermediate, and deep groundwater monitoring wells along with the collection of surface water and sediment samples. The EPA signed a Record of Decision (ROD) in September 1991. A potentially responsible party conducted removal actions at the site in 1995. This included removal of drums and debris, cleaning out and sealing off the building, and welding manhole covers closed.

In 1996 an amended ROD called for the following actions:

- Consolidation and capping soils from the north and south cornfields, the previously excavated burial trench material (after stabilization), and possibly sediments from the polishing basin.
- De-watering and capping in-place sediments in the two aeration lagoons.
- On-site treatment and discharge of impoundment water to the nearby oxbow lake.
- Removal of sediments from other former wastewater treatment basins and consolidating with sediments in the aeration lagoons before capping.
- Cleaning of site buildings.
- Land use restrictions to limit future use of the site.
- Annual long-term monitoring of groundwater, which was subsequently determined not to be necessary.

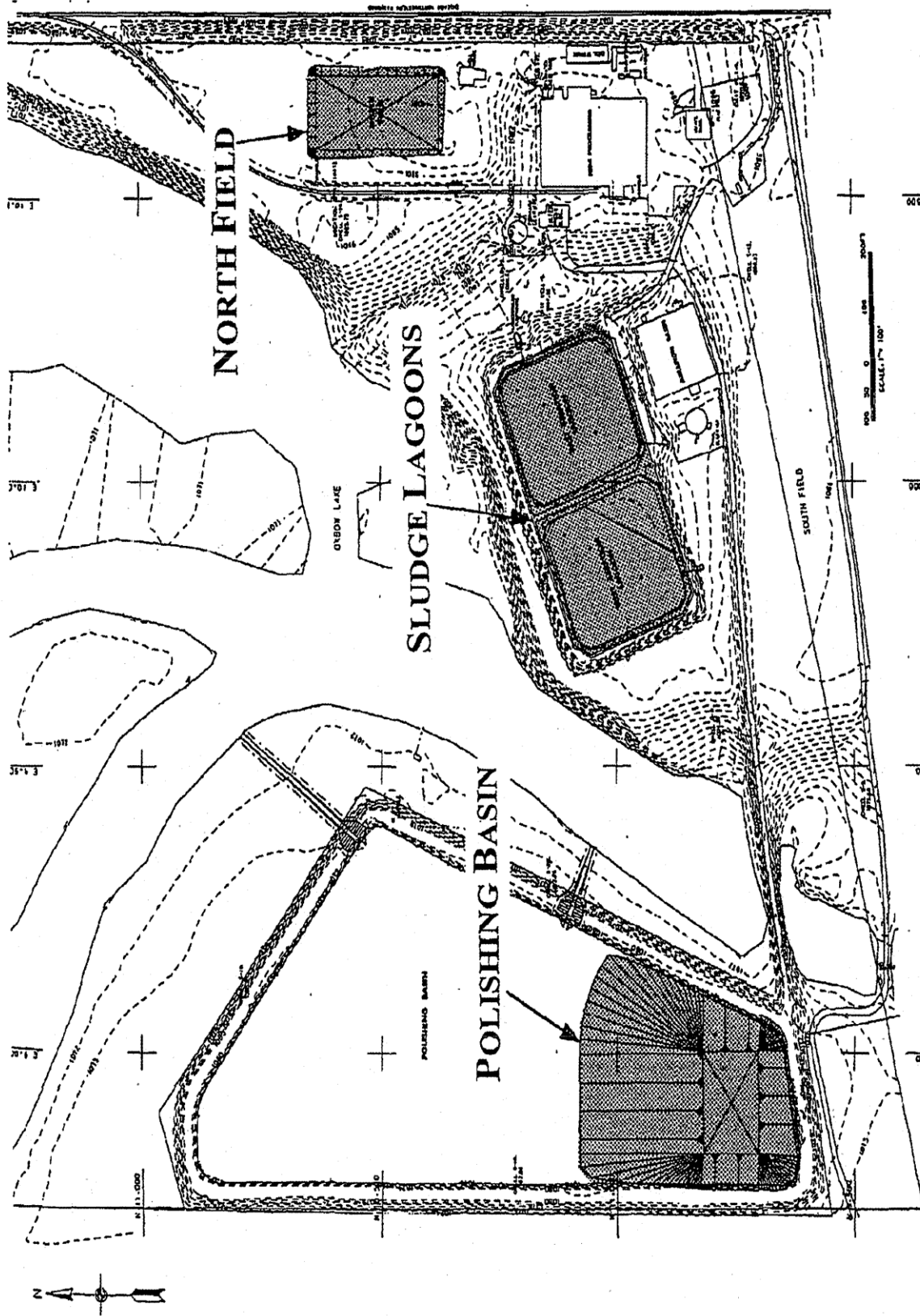
The EPA, in cooperation with the DNR, completed implementation of remedial actions prescribed in the amended ROD in 2000. In lieu of dewatering and capping the aeration lagoons, a floating cover was placed over the aeration lagoons. The polishing basin was drained and sediments consolidated at the southern end and capped.

Later in 2000 another Superfund Record of Decision was issued by EPA which concluded that groundwater contamination was no longer a concern at the site. A Superfund five-year review was conducted in 2003 which concluded that the remedy was protective.

In July of 2005 a release from the closed east aeration lagoon occurred from a previously unidentified buried pipe connected to the lagoon. The EPA and DNR responded to the release and plugged the leaking pipe.

In 2007 the EPA Removal program, in cooperation with the DNR conducted a permanent closure of the 2 aeration lagoons using fly ash to solidify the lagoon contents. The state is responsible for oversight of the site, which involves annual inspections.

A second Superfund five-year review for the site was initiated in February 2008. In May of 2008 the state participated in a site inspection in conjunction with EPA.



MID-AMERICA TANNING SITE MAP